

In the claims:

Cancel claim 1.

Add the following new claims:

16. A stent delivery system comprising:

a balloon catheter having a catheter body, a balloon positioned upon said catheter body and a portion defining an inflation lumen for selectively inflating and deflating said balloon;

a stent having a first diameter for intraluminal delivery, said stent being expandable to a second diameter for deployment in a vessel;

wherein said stent is ^{mounted} ~~mounted~~ on said balloon of said ^{balloon} ~~balloon~~ catheter for implantation in a vessel within the human body, said stent retained in indentations formed in said balloon, said balloon at least partially conforming to the generally ^{cylindrical} ~~tubular~~ shape of said stent.

17. The stent delivery system according to Claim 16 wherein the balloon adheres to the stent.

18. The stent delivery system according to Claim 16 wherein said stent is crimped onto said balloon to have an interior diameter D_i and wherein portions of said balloon protrude to have a diameter greater than D_i .

19. The stent delivery system according to Claim 16 further comprising at least one retainer means for facilitating delivery of said stent for implantation.

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~~20.~~ The stent delivery system according to Claim ~~16~~¹ wherein the balloon forms the at least one retainer means.

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~~21.~~ The stent delivery system according to Claim ~~16~~¹ wherein the stent comprises at least two connected members each having a plurality of substantially straight sections connected by axial bends.

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~~22.~~ The stent delivery system according to Claim ~~21~~⁶ wherein the balloon defines a number of wings selected relative to a number of axial bends of the stent.

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~~23.~~ The stent delivery system according to Claim ~~22~~⁷ wherein the balloon defines a number of wings selected relative to a number of axial bends of the stent.

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~~24.~~ The stent delivery system according to Claim ~~16~~¹ wherein the balloon defines at least three wings surrounding the balloon catheter for substantially symmetrical expansion of the stent.

¹⁰
~~25.~~ A stent delivery system comprising:
a balloon catheter having a catheter body, a balloon positioned upon said catheter body,
and an inflation lumen for selectively inflating and deflating said balloon;
a stent having a first diameter for intraluminal delivery, said stent being expandable to a second diameter for deployment in a vessel;

wherein said stent is mounted on said balloon of said balloon catheter for implantation in a lumen within the human body; and

said balloon further comprises one or more retainer means for retaining said stent on said balloon for intraluminal delivery.

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26. The stent delivery system according to Claim 25 wherein the balloon adheres to the stent.

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27. The stent delivery system according to Claim 25 wherein said further comprises one or more ends and wherein said one or more retainer means are in engagement with said one or more ends for intraluminal delivery of said stent.

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28. The stent delivery system according to Claim 25 wherein the stent comprises at least one member in the form of a plurality of substantially straight sections connected at axial bends.

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29. The stent delivery system according to Claim 28 wherein the stent comprises at least two connected members each having a plurality of substantially straight sections connected by axial bends.

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30. The stent delivery system according to Claim 28 wherein the balloon defines a number of wings selected relative to a number of axial bends of the stent.

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31. The stent delivery system according to Claim ¹⁰~~25~~ wherein the balloon defines at least three wings surrounding the balloon catheter for substantially symmetrical expansion of the stent.

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32. The stent delivery system according to Claim ¹⁰~~25~~ wherein said stent is crimped onto said balloon to have an interior diameter D_i and wherein said one or more retainer means defined by said balloon have a diameter greater than D_i .

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33. The stent delivery system according to Claim ¹⁰~~25~~ wherein said stent further comprises one or more ends and an interior diameter of D_i when crimped upon said balloon and;
at least one of said retainer means of said balloon extend beyond said one or more ends of said stent;
wherein when said stent is crimped onto said balloon, said at least one retainer means has a diameter greater than D_i .

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